

5.2 TIDAL POWER GENERATION IN INDIA:

- Long coastline with the estuaries and gulfs in India has a strong tidal range and height to move turbines for electrical power generation. Important site location and estimated power potential of a few Indian tidal energy plant is given in Table below

Site Location	Tide Heights(m)	Estimated Power Potential (MW)
The Gulf of Cambay, Gujarat	11	7000
Gulf of Kutch, Gujarat	8	12000
The Ganges Delta in the Sundarban, West Bengal	5	8000

Table 5.1 Tidal Potential in India

[Source: "Solar Photovoltaics: Fundamentals, Technologies and Applications" by Chetan Singh Solanki, Page:376]

- Many organizations and government agencies are busy in the construction of tidal power plants on all those location and harnessing tidal energy at full capacity. There is an ample prospect for tidal power development in India. It has been investigated that Gulf of Cambay may prove the biggest tidal energy reservoir for India. Extensive exploration on the western coast in Gulf of Kutch (at Mandva), Gulf of Combay (at Hazira), Maharashtra (at Janjira and Dharmata) and also in Hoogali, Chhatarpur, and Puri on Eastern coast may be worth attempting.
- Nevertheless, the possibility of developing tidal power scheme in India may be examined in the following all aspects:
 1. Economic aspects of tidal power schemes when compared to the conventional schemes.
 2. Problems associated with the construction and operation of plant.
 3. Problems related to the hydraulic balance of the system in order to minimize the fluctuation in the power output.
 4. Environmental effects of the schemes.